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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/709,921
Filing Date	06/06/2004
First Named Inventor	Yung-Yi LIU
Art Unit	1745
Examiner Name	ECHELMEYER, ALIX ELIZABETH
Total Number of Pages in This Submission	10
Attorney Docket Number	NANP0002USA

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): <ul style="list-style-type: none"> 1. A copy of the Front Page of Patent 2. A copy of Fee Transmittal submitted on 04/17/2007 3. Copies of the Notice of Recordation dated 06/07/2004 4. The Form of PTO/SB/44
Remarks		
Request for Certificate of Correction of Office Mistake		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

JUN 12 2007
of Correction

Firm Name	North America Intellectual Property Corporation		
Signature	<i>Winston Hsu</i>		
Printed name	Winston Hsu		
Date	JUN 07 2007	Reg. No.	41,526

CERTIFICATE OF TRANSMISSION/MAILING

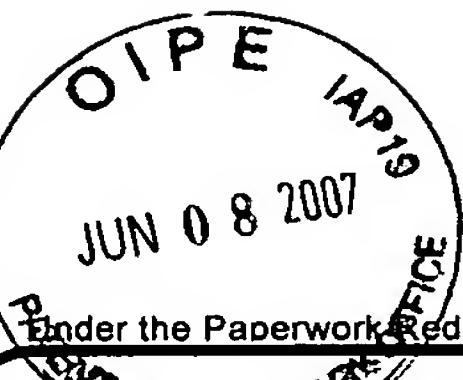
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	<i>Stephanie Lai</i>		
Typed or printed name	Stephanie Lai	Date	JUN 07 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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JUN 12 2007



Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL For FY 2007

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 0.00)

Complete if Known

Application Number	10/709,921
Filing Date	06/06/2004
First Named Inventor	Yung-Yi LIU
Examiner Name	ECHELMEYER, ALIX ELIZABETH
Art Unit	1745
Attorney Docket No.	NANP0002USA

METHOD OF PAYMENT (check all that apply)

Check Credit Card Money Order None Other (please identify): _____
 Deposit Account Deposit Account Number: 50-3105 Deposit Account Name: North America Intellectual Property Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

Charge fee(s) indicated below Charge fee(s) indicated below, except for the filing fee
 Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description

Each claim over 20 (including Reissues)

Each independent claim over 3 (including Reissues)

Multiple dependent claims

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	=				

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)		
- 3 or HP =	x	=			

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): _____

SUBMITTED BY

Signature	Winston Hsu	Registration No. (Attorney/Agent)	41,526	Telephone	3027291562
Name (Print/Type)	Winston Hsu			Date	JUN 07 2007

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No. : 7,220,507 B2

Issue Date : May 22, 2007

Inventor : Yung-Yi Liu et al.

Docket No. : NANP0002USA

Title: FLAT PANEL DIRECT METHANOL FUEL CELL AND METHOD OF MAKING
THE SAME

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office Mistake

Dear Sir:

The number of the assignee listed on the front page of the above-identified Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to add Nan Ya Printed Circuit Board Corporation, Taoyuan (TW), as one of the assignees which were correctly listed on the Fee Transmittal submitted on 04/17/2007 (Attachment 2) and the Notice of Recordation dated 06/07/2004 (Attachment 3).

Respectfully submitted,

Winston Hsu

Date: JUN 07 2007

Winston Hsu, Patent Agent No. 41,526
P.O. BOX 506, Merrifield, VA 22116, U.S.A.
Voice Mail: 302-729-1562
Facsimile: 806-498-6673
e-mail : winstonhsu@naipo.com

(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan).

Please add " Nan Ya Printed Circuit Board Corporation, Taoyuan(TW)" to be one of the assignees

Attachment 1



US007220507B2

(12) United States Patent
Liu et al.

(10) Patent No.: US 7,220,507 B2
(45) Date of Patent: May 22, 2007

(54) FLAT PANEL DIRECT METHANOL FUEL CELL AND METHOD OF MAKING THE SAME

(75) Inventors: Yung-Yi Liu, Taipci Hsien (TW); Shi-Shyan James Shang, Taoyuan (TW); Hsi-Ming Shu, Taipei Hsien (TW); Tsang-Ming Chang, Taipei (TW); Feng-Yi Deng, Taipei (TW)

(73) Assignee: Antig Technology Co., Ltd., Taipei (TW)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 262 days.

(21) Appl. No.: 10/709,921

(22) Filed: Jun. 6, 2004

(65) Prior Publication Data

US 2005/0214621 A1 Sep. 29, 2005

(30) Foreign Application Priority Data

Mar. 26, 2004 (TW) 93108441 A

(51) Int. Cl.

H01M 8/02 (2006.01)
H01M 8/10 (2006.01)

(52) U.S. Cl. 429/32; 429/36

(58) Field of Classification Search 429/32
Sec application file for complete search history.

(56) References Cited

U.S. PATENT DOCUMENTS

6,127,058 A * 10/2000 Pratt et al. 429/30
6,451,624 B1 * 9/2002 Farnworth et al. 438/106
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2005/0158608 A1 * 7/2005 Shu et al. 429/34

* cited by examiner

Primary Examiner—Susy Tsang-Foster

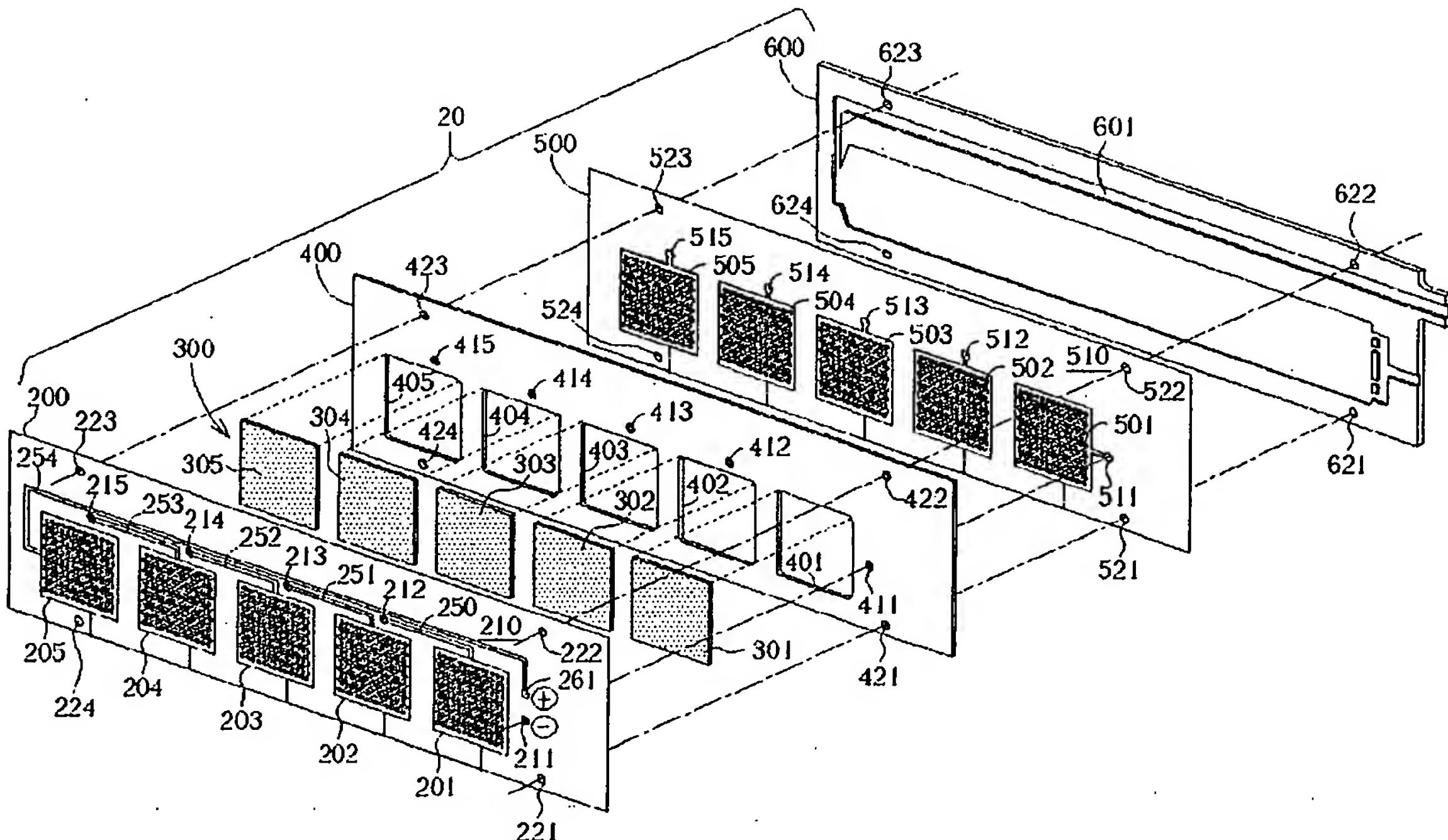
Assistant Examiner—Alix Echelmeyer

(74) Attorney, Agent, or Firm: Winston Hsu

(57) ABSTRACT

A flat panel DMFC (direct methanol fuel cell) includes an integrated cathode electrode sheet; a membrane electrode assembly (MBA) unit; an intermediate bonding layer; an integrated anode electrode sheet; and a fuel container. The integrated cathode/anode electrode sheets are manufactured by using printed circuit board (PCB) compatible processes.

13 Claims, 12 Drawing Sheets



2007

Attachment 2

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

27765 7590 03/05/2007

NORTH AMERICA INTELLECTUAL PROPERTY
 CORPORATION
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 MERRIFIELD, VA 22116

Certificate of Mailing or Transmission
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Stephanie Lai (Depositor's name)
 Stephanie Lai (Signature)
 04/17/2007 (Date)

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO.
10/709,921	06/06/2004	Yung-Yi LIU	NANP0002USA	3920

NAME OF INVENTION: FLAT PANEL DIRECT METHANOL FUEL CELL AND METHOD OF MAKING THE SAME

APPLN TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$0	\$1700	06/05/2007
EXAMINER		ART UNIT	CLASS-SUBCLASS			
ECHELMEYER, ALIX ELIZABETH		1745	429-032000			

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/17; Rev. 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list
 (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Winston Hsu
 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE
 Nan Ya Printed Circuit Board Corporation

(B) RESIDENCE: (CITY and STATE OR COUNTRY)
 338, Sec. 1, Nankan Road, Luchu, Taoyuan, Taiwan, R.O.C.

7F-1 No 342 Fu-Hsin North Road, Taipei, Taiwan, R.O.C.

7F-1 No 342 Fu-Hsin North Road, Taipei, Taiwan, R.O.C.

ANTIG TECHNOLOGY CO., LTD.

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. The following fee(s) are submitted:

Issue Fee
 Publication Fee (No small entity discount permitted)
 Advance Order - # of Copies

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

A check is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50-3105 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Winston Hsu

Date 04/17/2007

Typed or printed name

Winston Hsu

Registration No. 41,526

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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 Patent and Trademark Office
 ASSISTANT SECRETARY AND COMMISSIONER
 OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231



JUNE 07, 2004

PTAS

800012245A

NAIPO (NORTH AMERICA INTERNATIONAL PATENT
 P.O. BOX 506
 MERRIFIELD, VA 22116

Zoe Tseng

2004/6/23

UNITED STATES PATENT AND TRADEMARK OFFICE
 NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/06/2004

REEL/FRAME: 014696/0319
 NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
 DOCKET NUMBER: NANP0002USA

ASSIGNOR: LIU, YUNG-YI	DOC DATE: 05/28/2004
ASSIGNOR: SHANG, SHI-SHYAN JAMES	DOC DATE: 05/28/2004
ASSIGNOR: SHU, HSI-MING	DOC DATE: 05/28/2004
ASSIGNOR: CHANG, TSANG-MING	DOC DATE: 05/28/2004
ASSIGNOR: DENG, FENG-YI	DOC DATE: 05/28/2004

JUN 12 2007

ASSIGNEE:

NAN YA PRINTED CIRCUIT BOARD
CORPORATION

338, SEC. 1, NANKAN ROAD, LUCHU
TAOYUAN, TAIWAN

ASSIGNEE:

ANTIG TECHNOLOGY CO., LTD.
7F-1 NO 342 FU-HSIN NORTH ROAD
TAIPEI, TAIWAN

SERIAL NUMBER: 10709921

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: FLAT PANEL DIRECT METHANOL FUEL CELL AND METHOD OF MAKING THE SAME

LAZENA MARTIN, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

JUN 12 2008

PATENT ASSIGNMENT

Electronic Version v07
Stylesheet Version v02

**06/06/2004
800012245**

SUBMISSION TYPE:	NEW ASSIGNMENT	APPLICATION NUMBER
		10/709921

NATURE OF CONVEYANCE:	ASSIGNMENT OF ASSIGNOR'S INTEREST
------------------------------	--

CONVEYING PARTY DATA

Name	Execution Date
Yung-Yi LIU	2004-05-28
Shi-Shyan James SHANG	2004-05-28
Hsi-Ming SHU	2004-05-28
Tsang-Ming CHANG	2004-05-28
Feng-Yi DENG	2004-05-28

RECEIVING PARTY DATA

Name	Street Address	Internal Address	City	State/Country	Postal Code
Nan Ya Printed Circuit Board Corporation	338, Sec. 1, Nankan Road, Luchu		Taoyuan	TAIWAN	
ANTIG TECHNOLOGY CO., LTD.	7F-1 No 342 Fu-Hsin North Road		Taipei	TAIWAN	

CORRESPONDENCE DATA

FAX NUMBER: 886229295950

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CUSTOMER NUMBER: 027765

NAME OF PERSON SIGNING:	WINSTON HSU
DATE SIGNED:	2004-06-05

Total Attachments: 2

source=NANP0002ASS1.tif

source=NANP0002ASS2.tif

JUN 12 2007

**UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 7,220,507 B2

APPLICATION NO.: 10/709,921

ISSUE DATE : May 22, 2007

INVENTOR(S) : Yung-Yi Liu et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page,
Item [73], add "Nan Ya Printed Circuit Board Corporation, Taoyuan (TW) " to be one of the assignees.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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